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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Uwe Bornmann

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12/17/2009

WENDEROTH, LIND & PONACK, L.L.P.

1030 15th Street, N.W.,

Suite 400 East

Washington, DC 20005-1503

EXAMINER

KENNEDY, TIMOTHY J

ART UNIT

PAPER NUMBER

1791

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/533,881	Applicant(s) BORNMAN ET AL.	
	Examiner TIMOTHY KENNEDY	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 31 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. By way of the amendment filed 8/31/2009: claims 1-3 are amended, claims 4 and 5 are cancelled, claims 6 and 7 are withdrawn-currently amended, and claims 8 and 9 are new.

Drawings

2. The drawings were received on 8/31/2009. These drawings are accepted.

Claim Rejections - 35 USC § 112

3. The previous rejections under 35 USC 112 Second Paragraph are withdrawn.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 2 are rejected under 35 U.S.C. 102 (b) as being anticipated by Kobayashi (EP 1101854, already of record). Regarding claim 1, Kobayashi teaches:
 6. A method for the production of geotextiles (Figure 1, part 26: nonwoven fabric) of melt-spun filaments (melt spinning machine 1 and continuous fibers 15) through hydrodynamic intertwining (Figure 1, part 4: high pressure water jet ejector, and paragraphs 0016, 0021, and 0023)

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7. Depositing melt-spun filaments onto a continuous screen band in a suction zone, wherein the filaments are held onto the screen band by suction (Figure 1 parts 3, 4, 21, 23, 24, and 26: and paragraphs 0015, 0016, 0021, and 0023)
8. Compacting the filaments onto the screen band (Figure 1, part 4: high pressure water jet ejector, and paragraphs 0016, 0021, and 0023: the action of the water jet will compact the fibers)
9. Transporting the filaments to a first curing stage (Figure 1, parts 4, 23, and 24, and paragraphs 0016, 0021, and 0023)
10. Hydrodynamically intertwining the filaments in the first curing stage (Figure 1, part 4: high pressure water jet ejector, and paragraphs 0016, 0021, and 0023, wherein the filaments are sufficiently cured such that the filaments may be transported to additional curing stages without support from the screen band (Figure 1: part 26 is released from part 3, thus teaching that the filaments are sufficiently cured and do not need a transport band)
11. Regarding claim 2:
12. The method as claimed in claim 1, further comprising guiding the filaments through one or more additional curing stages (A drying step: paragraph 16, column 3, lines 33-36)

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

16. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi, in view of Kampen et al (DE 10002451, using Derwent abstract, herein referred to as Kampen) and Kelb (U.S. Patent 3,601,860). Regarding claim 3:

17. Applying an underpressure of 1 to 100 mbar to the filaments

18. Kobayashi teaches suction zones but is silent as to the strength of the suction.

19. In the same field of endeavor Kampen teaches an underpressure of 10-50 mbar (Derwent abstract). Motivation of such underpressure comes from Kelb, who teaches

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that using underpressure maintains the position of the filaments during transport, and any unwanted moisture can be removed (column 4, lines 63-67)

20. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the underpressure as taught by Kampen and Kelb, using the Kobayashi method, since doing so would help ensure the filament positioning during transport.

21. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi, in view of Kelb. Regarding claim 4

22. Wherein in the first curing stage, the screen band serves as a filter, and water jets act through the screen band, wherein the mesh size of the screen band is $1\text{-}8\text{ cm}^{-1}$

23. Kobayashi teaches using a screen band during the hydrodynamic intertwining, but is silent to the mesh size.

24. In the same field of endeavor Kelb teaches a mesh size of 1.5 mm (column 4, lines 69-71). A mesh size of 1.5 mm means that the opening size is 1.5 mm. An opening of 1.5 mm corresponds to a mesh size of roughly 13 openings per inch. Which when converted to metric is 5.12 openings per centimeter.

25. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the mesh size as taught by Kelb, using the Kobayashi method, since choosing such as mesh size is obvious to try since there are only so many mesh sizes. It has been shown that a person of ordinary skill has good reason to pursue the known options in their art. If this lead to an anticipated success, it is likely

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that it was not due to innovation but of ordinary skill and common sense. *KSR*

International Co. v. Teleflex Inc., 82 USPQ2d 1385, 1397 (2007)

26. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi, in view of Simpson et al (U.S. Patent 5,023,130, herein after referred to as Simpson). Regarding claim 5:

27. Wherein in the first curing stage, the screen band serves as a support and has a mesh size of 10-100 cm⁻¹

28. Kobayashi teaches using a screen band to support he fibers during process, but is silent to the mesh size.

29. In the same field of endeavor Simpson teaches a mesh size of 60 to 150 (abstract). A mesh size 60 to 150 means there are 60 to 150 openings per inch. Which when converted to metric is 23.62 to 59.06 openings per centimeter.

30. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the mesh size as taught by Simpson, using the Kobayashi method, since choosing such as mesh size is obvious to try since there are only so many mesh sizes. It has been shown that a person of ordinary skill has good reason to pursue the known options in their art. If this lead to an anticipated success, it is likely that it was not due to innovation but of ordinary skill and common sense. *KSR*

International Co. v. Teleflex Inc., 82 USPQ2d 1385, 1397 (2007).

Response to Arguments

31. Applicant's arguments filed 8/31/2009 have been fully considered but they are not persuasive.

32. Applicant argues that Kobayashi does not teach or suggest a method comprising compacting the filaments onto the screen band, transporting the filaments to a first curing stage, and hydrodynamically intertwining the filaments in the first curing stage, wherein the filaments are sufficiently cured such that the filaments may be transported to additional curing stages without support from the screen band.

33. Regarding compacting the filaments onto the screen band:

34. Kobayashi teaches using a water jet to hydrodynamically intertwine the fibers. The water jet would also compact said fibers due to the nature of the interaction of the water jet and fibers.

35. Applicant argues in the remarks that the compaction is done with a compaction band as shown in the figures, however this feature is not in the claim language.

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

36. Regarding transporting the filaments to a first curing stage, and hydrodynamically intertwining the filaments in the first curing stage:

37. Kobayashi in Figure 1 clearly teaches transporting the fibers on a screen band to a first cure stage (i.e. the water jet), and when the fibers reach the water jet they are

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hydrodynamically intertwined at the first cure stage, as discussed in the above Office Action.

38. Regarding the filaments are sufficiently cured such that the filaments may be transported to additional curing stages without support from the screen band:

39. The Examiner does not understand the contention raised by the Applicant regarding this feature, since the manner by which the Applicant transports the sufficiently cured fibers to additional curing stages would also require tension to be applied to the fibers, otherwise the fibers would not go anywhere. Even if the fabric was entirely cured and self-supporting when it left the screen band, as long as it is cantilevered out from the screen band the screen band is still supporting the fabric.

40. In Figure 1 of Kobayashi, once the fabric leaves the band (3) it is being supported by the tension of the roller (6). No where in the claim language does it say that the fabric cannot be supported by such means, all that the claim says is the screen no longer supports the sufficiently cured fabric.

Conclusion

41. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

42. U.S. Patents 4070816, 4089720, 7530147

43. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY KENNEDY whose telephone number is (571) 270-7068. The examiner can normally be reached on Monday to Friday 9:00am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Del Sole can be reached on (571) 272-1130. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

tjk

/Joseph S. Del Sole/
Supervisory Patent Examiner, Art Unit 1791